

Remarks

These remarks respond to the Office Action mailed July 14, 2006. All of the independent claims – claims 1, 8, and 19 – have been amended. New claims 20 and 21 have been added. Claims 1-21 are now pending in the application.

New Claims

Support for claim 20 can be found throughout the specification and specifically in paragraph 0031. Support for new claim 21 can be found throughout the specification and specifically in paragraph 0035. No new matter has been added.

Claim Rejections – 35 U.S.C. § 112

The Examiner rejected claim 3 as having insufficient antecedent basis for the term “said configuring.” Claim 3 has been amended to correct this error.

Claim Rejections – 35 U.S.C. § 102

The Examiner rejected claims 1-19 as anticipated by U.S. Patent No. 6,484,280 to Moberly. This rejection is respectfully traversed.

Moberly is directed to a method of testing integrated circuits such as an SoC, also known as a system-on-a-chip (abstract). The Examiner points to a portion of Moberly which discusses wrapping an SoC in scan path cells which allow the inputs and outputs of a functional block to be intercepted through scan chains (col. 2, lines 52-61).

Claim 1 has been amended to more clearly point out what the applicant believes is his invention. Amended independent claim 1 recites a method for shifting contents of at least one register element in a scan chain and “debugging the SoC using the contents” obtained from the at least one element. Applicant believes that this step is inherent in the original claim as filed, but has modified the claim because the infinitive “to debug” did not clearly denote a step of the process as applicant had intended. Thus, the method of claim 1 debugs a SoC using the internal state of the device as contained in the registers within the device, while the device is under normal functional operation.

The system in disclosed Moberly merely *tests* an integrated circuit, it does not *debug* any integrated circuit or SoC (see abstract, claim 1). The system in Moberly is used for a

manufacturing test (col. 2, lines 48-51). Moberly does not teach or suggest any debugging of the SoC should it fail any of the testing. The system in Moberly will tell a user *whether* an SoC works, it does not debug an SoC using content obtained from at least one register element in at least one scan chain, which identifies *why* the SoC is not functioning properly.

Thus, because Moberly fails to disclose or suggest debugging an SoC using information obtained from at least one scan chain, and because this novel element is expressly claimed in each claim pending herein, Moberly fails to disclose or suggest all of the elements of independent claim 1 of the present application.

Independent claims 8 and 19 are asserted as patentable for at least the reasons discussed above in connection with claim 1; namely, that Moberly merely teaches a test process and not a debug process, apparatus, or data storage media.

Applicants designate the rejected dependent claims as being allowable by virtue of their ultimate dependency upon allowable independent claims. Although applicants have not separately argued the patentability of each of the dependent claims, applicants' failure to do so is not to be taken as an admission that the features of the dependent claims are not themselves patentable over the prior art cited by the Examiner.

Applicant: Yee, Oceager P.
Application No. 10/748,065

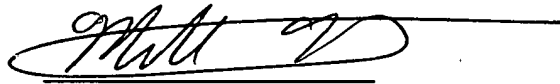
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Conclusion

As it is believed that all of the rejections set forth in the Official Action have been fully met, favorable reconsideration and allowance are earnestly solicited.

If, however, for any reason the Examiner does not believe that such action can be taken at this time, it is respectfully requested that he telephone the applicants' attorney at 609-786-1086 to overcome any additional objections which he may have.

Respectfully submitted,

A handwritten signature in dark ink, appearing to read 'Matthew E. Hanley', is written over a horizontal line.

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